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AIR COMMAND AND STAFF COLLEGE

STUDENT REPORT

AN INVESTIGATION OF THE FACETS
FOR CONVERTING MILITARY
AUTHORIZATIONS FOR MAINTENANCE
PERSONNEL TO CIVILIAN POSITIONS

MAJOR STUART E. MORTHOLE

84-1830

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REPORT NUMBER 84-1830

TITLE AN INVESTIGATION OF THE FACETS FOR CONVERTING MILITARY AUTHORIZATIONS
FOR MAINTENANCE PERSONNEL TO CIVILIAN POSITIONS

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Submitted to the faculty in partial fulfillment of
requirements for graduation.

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PREFACE

The current policy for substituting civilian personnel for military personnel is expressed by Air Force Regulation 26-1 and by Office of Management and Budget Circular Number A-76 (Revised). These documents outline the use of civilian personnel in place of military personnel, prohibit conversions which require combat related personnel or critical military skills, and use cost as the primary factor to determine the position conversions. Although cost is a factor that must be considered, there are other human resource factors which have an effect on the organization and its personnel.

The purpose of this paper is to review the concept of military to civilian conversions, consolidate information about the military to civilian conversion of maintenance positions, determine the advantages and disadvantages of position conversions, examine the associated factors of conversions and their impact with respect to Air Force maintenance functions, and investigate the premise that such conversions could be detrimental to the mission of the United States Air Force even though it may be cost effective.

This material is being submitted to the faculty of Troy State University in Montgomery in partial fulfillment of the requirements for the Master of Science in Personnel Management degree.

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ABOUT THE AUTHOR

Major Morthole received his commission in January 1969, after graduation from the University of Wyoming with a Bachelor of Science degree in Civil Engineering. After a two-year assignment at St. Louis, Missouri, as Chief of the Operations and Maintenance Branch for Civil Engineering at the Aeronautical Chart and Information Center, Major Morthole attended Undergraduate Navigator Training and B-52 Navigator-Bombardier Training at Mather Air Force Base, California. After graduation, he was assigned to Ellsworth Air Force Base, South Dakota, and flew as a navigator, radar-navigator, and Wing Standardization-Evaluation instructor radar-navigator for the 28th Bomb Wing. From August 1978 to August 1980, he was assigned to the combat crew training squadron of the 93th Bomb Wing at Castle Air Force Base and flew as an instructor radar-navigator in the B-52G and B-52H aircraft. In August of 1980, Major Morthole was selected for a tour as a United States Air Force Exchange Officer with the Canadian Forces Aerospace and Navigation School at Winnipeg, Canada. After graduation from the ten month Canadian Aerospace Systems Course, Major Morthole remained on staff as the Aerospace Squadron Chief Instructor and as a radar systems instructor until July 1983. Major Morthole is completing his Master's Degree in Personnel Management at Troy State University in Montgomery and is presently a member of the class of 1984, Air Command and Staff College, Maxwell Air Force Base, Alabama.

TABLE OF CONTENTS

Preface -----	iii
About the Author -----	iv
Executive Summary -----	vii
CHAPTER ONE - INTRODUCTION	
Personnel Management -----	1
Military and the Congress -----	1
The Dilemma of Conversions -----	2
Current Policy -----	3
Limitation -----	3
Purpose -----	4
CHAPTER TWO - REVIEW OF CONCEPT OF CONVERSIONS	
Background -----	5
Conversion Guidance -----	5
The Air Force Mission -----	7
The Human Resource Aspect -----	8
CHAPTER THREE - PAST MANPOWER CONVERSIONS/ACTIONS	
Introduction -----	9
Project Native Son -----	9
Project Home Front -----	9
Project Mix Fix -----	10
Conversion Action Post 1970 -----	13
Consequences of Past Conversions -----	14
CHAPTER FOUR - A DISCUSSION OF MANPOWER AVAILABILITY	
Introduction -----	16
Active Duty Military -----	16
The All-Volunteer Force -----	17
Economy and Labor Market Effects -----	17
Civilian Manpower -----	19
National Emergency Situations -----	20
Summary of Manpower -----	21
CHAPTER FIVE - MAINTENANCE CONCEPT OF OPERATIONS	
Background -----	22
Maintenance Preparation and Readiness -----	22
Concepts of Unit Organization -----	25
Maintenance Summary -----	27

CONTINUED

CHAPTER SIX - FACTORS TO CONSIDER WITH CONVERSIONS

Introduction -----	28
Exceptions to Conversions -----	28
Disadvantages to Conversions -----	31
Advantages to Conversions -----	38
Summary -----	42

CHAPTER SEVEN - CONCLUDING MATERIAL

Summary -----	43
Conclusions -----	46
Recommendations -----	46

BIBLIOGRAPHY -----	47
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EXECUTIVE SUMMARY

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REPORT NUMBER 84-1830

AUTHOR(S) MAJOR STUART E. MORTHOLE, USAF

TITLE AN INVESTIGATION OF THE FACETS FOR CONVERTING MILITARY AUTHORIZATIONS FOR MAINTENANCE PERSONNEL TO CIVILIAN POSITIONS.

I. Purpose: To investigate human resource factors associated with military to civilian conversions and their impact on maintenance positions in support of the mission of the United States Air Force.

II. Problem: The conversion of military authorized positions to civilian positions is addressed in depth by AFR 26-1, Volume I, Manpower Policies and Procedures - Comparative Costs Analysis and OMB Circular Number A-76, Performance of Commercial Activities. Although these documents provide guidance for position conversions and analysis, they do not consider the human resource factors associated with converting the positions.

III. Data: Historical information was reviewed from USAF sources and data was obtained from literature and current management textbooks. The research was supported by a data base search from the Defense Logistics Studies Information Exchange;

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telephone interviews with command level and HQ USAF manpower agencies; and a local interview with manpower personnel to obtain relevant information. The research focused on determining the factors relevant to military/civilian position conversions.

IV. Conclusions: Military to civilian conversions are complex actions requiring an in-depth analysis of all the associated factors from cost to morale implications. To rely on cost alone or the release of military personnel for other combat related duties without analyzing the conversion situation may result in decreased unit cohesion and readiness. Nineteen factors were presented by this paper that have an effect on conversions. Two factors, cost and heritage, were considered beyond the scope of this paper while environment and skill variety were factors considered to have neither an advantage or a disadvantage for conversions. Four factors considered as advantages to conversion actions were continuity of operations, reduced mobility introduced by civilian personnel, technology, and training. Eleven factors were determined to be disadvantages including the following: equity, grade comparison, performance appraisals, performance standards, morale, overseas service, unions, career progression, discipline, position/personnel conflicts, and quality-of-working life. The weight of the remaining eleven factors indicated that a military to civilian conversion in the maintenance specialities are detrimental to the Air Force Mission.

V. Recommendations: Cost and the intended release of military personnel for combat duties should not be the only factors used to determine conversion actions. The investigations need to include the associated human resource aspects to determine the true picture in each conversion regarding the advantages and disadvantages for future maintenance position conversions.

Chapter One

INTRODUCTION

PERSONNEL MANAGEMENT

Personnel management is no longer a career of paperwork distribution and people pushing to fill the position vacancies opened by the promotion, firing, retiring, or movement of personnel within an organization. Rather, human resources management is the current term assigned to those employees engaged in managing the total work life of an organization and the organization's employees. Human resources management has become a technology that includes the management of personnel for many reasons other than simply assigning people to do a job. It includes activities such as follows: personnel evaluation for the purpose of matching a prospective employee to a possible job assignment; evaluating pay, promotion potential, and quality-of-work life; or, evaluating the reasons behind absenteeism and turnover rates. The human resources manager is vitally concerned with human needs as described by Maslow and human motivation factors as described by Herzberg. Within the Air Force, military leaders as human resource managers are faced not only with the military personnel assigned to their units but also with civilian employees as members of the Air Force team.

MILITARY AND THE CONGRESS

Military managers must work with the unique aspects of military and civilian employees within the confines of the military mission. Air Force Regulation (AFR) 26-1 Volume 1, Manpower Policies and Procedures - Comparative Costs Analysis, states that the workloads generated by these military missions may be accomplished in three ways as follows:

by military members, by inservice civilian employees, or by contract services. Past experience shows that all three types have been responsive and dependable in accomplishing various sensitive and important workloads. Various factors promote or restrain the use of each type of resource. The paramount requirement is to maintain military manpower for

national defense at a level that will efficiently meet combat and direct combat support needs (39:5).

In addition, another consideration included by AFR 26-1 was that of "using the least costly form of civilian manpower where relative cost is the deciding factor" (39:5). However, testimony before the Defense Manpower Commission on the issue of civilianization introduces a counterpoint as follows:

the comparison of the average costs of military and civilian personnel . . . indicates that large savings are not likely to result from a wholesale substitution of civilians for military personnel, though modest substitution programs may be cost-effective in certain cases. The reason for this perhaps surprising result is that civilians have also become very much more expensive in recent years (22:16).

Consequently, the conversion of military positions for civilians has been a subject of concern for congressional leaders and military leaders, primarily because of budget limitations during the years since the Vietnam War. Congressional members, interested in reducing the Federal Budget, see these conversion actions as a quick and beneficial means to accomplish the military mission within the continental United States without endangering the security of the country while at the same time releasing military personnel to accomplish pertinent military duties throughout the rest of the world. Military commanders, however, view the conversions as a reduction of their own military personnel which in turn affects their ability to provide the adequate military support required for their mission and remain mobile for possible world-wide commitment.

THE DILEMMA OF CONVERSIONS

The dilemma with military to civilian conversions is the balance between the cost effectiveness of civilian personnel versus the requirement for military personnel in the position. Congressional members primarily tend to view such conversions as cost effective while military personnel desire to keep their own military members in the position for advantages such as mobility and availability 24 hours a day. A recent Federal Times article stated that "hundreds of thousands of federal jobs must be reviewed for possible conversion to the private sector within the next four years" (14:1). While this article was referring to contracting-out, which this paper does not address, it demonstrates the government's acute interest in cost efficient operations, in particular, within the Department

of Defense. In addition, the article states "\$1 billion a year will be saved in each of the next five years either through contract savings or through more efficient in-house operations" (14:1). Although the question of conversions appears to be simple, it is complicated as well as controversial (32:16).

CURRENT POLICY

Currently, the basic policy regarding the use of military for civilian personnel is expressed by AFR 26-1 paragraph 1-4 as follows:

- a. Workloads will be performed by military for reasons of military essentiality . . .
- b. Workloads that do not require military for military essential reasons are performed in-house by inservice civilians or by contract.

Chapter Two of AFR 26-1 Volume I, outlines in greater detail the requirements for the use of military, civilian, and contract services manpower. In general, combat related positions and Critical Military Skills (CMS) prohibit the utilization of civilian personnel.

The conversion cost of military authorized positions to civilian positions is addressed in depth by AFR 26-1 and by Office of Management and Budget Circular Number A-76 (Revised). Although the idea is simply a conversion of nonessential military jobs to civilian jobs and evaluating a detailed cost comparison, there are other human resource factors which may have an effect on the organization and its personnel. These additional facets should be considered before such a conversion is implemented within an organization.

LIMITATION

Initially, the research for this paper included the intent to investigate specific positions that could be used for further military to civilian conversions. However, the research indicated that determining specific positions for conversion requires not only a thorough analysis of information such as position classification standards and job descriptions, but also the incorporation of the human relations aspects investigated by this paper.

A part of any manager's role is to deploy people to best advantage, but not as if they were inanimate

objects. People have individual characteristics, career aims, perceptions of themselves and of others, desires, emotions, [and] personal problems (2:297).

In addition, a 1983 article published by the Joint Chiefs of Staff stated that "The Services are nearing the maximum numbers of military to civilian space conversions" (19:60). Consequently, the analysis to determine specific maintenance positions for further conversion to civilian personnel was beyond the scope of this paper.

PURPOSE

The purpose of this paper is to review the concept of military to civilian conversions in greater detail, consolidate information about the military to civilian conversion of maintenance positions, determine the advantages and disadvantages of position conversions, examine the associated facets of conversions and their impact with respect to Air Force maintenance functions, and investigate the premise that such conversions could be detrimental to the mission of the United States Air Force (USAF) even though it may be cost effective.

Chapter Two

REVIEW OF CONCEPT OF CONVERSIONS

BACKGROUND

The concept of conversion, for the purpose of this paper, involves the exchange of military positions for civilian positions to release military personnel for other duties. The purpose of the conversion is twofold. First, there is the benefit in the reduction of personnel and therefore an apparent reduction of costs. Second, while fewer civilians are utilized to accomplish the work, military personnel are also released for combat related jobs that can not be fulfilled by civilians. The exchange maintains the support required for noncombat positions and provides a source of combat ready personnel to utilize in critical skill areas.

CONVERSION GUIDANCE

There are two documents which currently provide guidance for manpower procedures and analysis for the government with respect to position conversions. The first document, Office of Management and Budget (OMB) Circular Number A-76 titled Performance of Commercial Activities establishes the current policies for acquiring commercial services by the government. The circular provides guidance whether to accomplish a workload through commercial means or by in-house support.

The second document, Air Force Regulation (AFR) 26-1, establishes the current procedures regarding the manpower mix within the Air Force. Chapter Two of the regulation outlines the steps involved to determine which workloads require either military or civilian personnel. Those positions that do not require a military member will be "performed by inservice civilian employees or by contract" (39:6). Approval by Headquarters USAF is required for the use of inservice civilian manpower. The process to determine the manpower mix is also a part of AFR 26-1 and includes items such as the availability of military or civilian skills, interim use of civilian skills, and contract services.

In addition, the regulation includes criteria and coding

instructions for military essential positions, the Unsatisfactory Rotation Index program, and the Critical Military Skills (CMS) program. These three instructions appear to be the result of past conversion problems; therefore, it is easiest to summarize them now rather than in the next chapter.

First, the military essential codes and criteria describe specific positions which require military personnel to perform the duties. According to AFR 26-1,

The determination on whether or not a position must be military will, in some cases, be judgmental. If so, the decision must be as objective as possible and backed up by supporting rational [sic] (39:67).

Several codes are described which cross a spectrum of duties from combat positions to the traditional occupation of bandsmen and honor guards. The only specific reference to combat capability is based on those positions which "if not performed, could impair Air Force combat capability within approximately a 36-hour period" (39:67).

Second, the Unsatisfactory Rotation Index program requires enough Continental United States (CONUS) authorized positions to permit military personnel an assignment in the US to reduce the amount of overseas time which can have an adverse affect on the quality-of-work life, a subject which will be discussed later in this paper. Without such a program, some personnel would have extended overseas duty assignments which could affect morale. Consideration to the overseas duty problem is the only factor considered by AFR 26-1 which involves the quality-of-work life.

The third program introduced by AFR 26-1 is the Critical Military Skills program which has this objective:

to help reduce wartime military skill (position) shortfalls through appropriate civilian to military position conversions, contracting decisions, and other manpower-related actions. This program promotes improved readiness by ensuring adequate military manpower by skill; an effective mix between active and reserve components; and a proper balance between combat and combat sustaining forces (39:67).

The two documents, AFR 26-1 and OMB Circular A-76, provide detailed cost guidance for conversions. The importance of the conversion problem cannot be understated in view of the present economic situation in the United States, although at the present time the economy seems to be improving. Both the federal government and USAF financial judgment dictate a

continuing evaluation of government spending in all areas including the costs associated with manpower.

THE AIR FORCE MISSION

The Air Force mission has primary importance and must be supported at all times since it supports the mission of the armed forces which is stated as follows:

the protection of the nation's vital interests, the deterrence of war, and the attainment of the nations objectives by the use of force if war should come. Fulfilling this mission requires the best efforts of capable, dedicated people; any lesser effort poses a danger, potentially an extreme danger, to the nation (27:xv).

Equally important to the Air Force mission is the capability of the Air Force to perform its mission. According to a recent joint posture statement by Air Force Secretary Verne Orr and Air Force Chief of Staff General Charles A. Gabriel,

Ultimately, our capability as an Air Force depends on our people. Recent combat has shown that well-trained, well-led, motivated people win battles. When a pilot resigns, when a crew chief hangs up his or her uniform, years of irreplaceable experience are lost. The best equipment that money can buy will not carry the day without the right people (18:89).

Although the philosophy of the manpower mix is supposed to support the Air Force mission and its capability, the mix is based primarily on the cost factors and military essential aspects associated with conversions and not on human resource factors which can have an equally important bearing on the Air Force mission and capability. The utilization of civilians could have the distinct advantage of cost, but there is also the following possibility:

institutional conflict between Congress, DOD and the services because acting in a manner that is less expensive in terms of the total picture may prove to be more costly to the services (45:5).

Since the factor of cost is briefly addressed in Chapter Six, it is appropriate to turn to the human resource aspects of conversions.

THE HUMAN RESOURCE ASPECT

Unfortunately, the concept of conversion does not include any associated facets or human relation considerations such as those related to the quality-of-work life which are created with military to civilian conversion programs and have a bearing on the Air Force mission. These additional considerations must be addressed in order to properly evaluate the advantages and disadvantages of conversion programs. For example, the Air Force relies on a very high specialization of tasks--division of labor--while the use of civilians permits an increased combination of tasks. Therefore, fewer civilians can be used to accomplish a particular task which means money is saved. According to the Hackman and Oldham model of job characteristics, combining tasks is the beginning of job enrichment which yields meaningful work and results in increased motivation (5:335). Consequently, this factor may be a disadvantage for maintaining military personnel in jobs that could be converted. The conversion of military to civilian personnel may have other advantages or disadvantages through additional human resource applications; these are discussed in Chapter Six.

Thus, the conversion of personnel from military to civilian is a complex subject involving far more than a simple inspection of positions and application of cost factors. While AFR 26-1 and financial judgment offer cost advantages as a quantified factor most easily seen by the public and Congress, several other human resource factors may affect the conversion of military positions to civilian positions. A partial list of such factors includes the following: mobility of personnel; manpower availability; civilian unions; morale; the effect of new weapon acquisitions; and the unique conditions of overseas service which military personnel are required to perform as part of their duties.

This paper is primarily concerned with the aspects of position conversions in maintenance operations and the effects on the mission and capability of the Air Force. A major premise of this paper is that those factors associated with conversions in the maintenance career field must be investigated to eliminate the possibility of adverse effects on the mission of the unit, command, and the Air Force. A brief discussion of past manpower conversions is presented in the next chapter to develop the history behind such conversions and to help determine additional factors that may have an impact on the overall mission of the Air Force. The aim is not "to be exhaustive, but to open up a complex subject and emphasize what is significant" (2:135).

Chapter Three

PAST MANPOWER CONVERSIONS/ACTIONS

INTRODUCTION

A brief look at past manpower conversion actions is necessary to develop some of the aspects that affect military to civilian conversions. The review begins with Projects Native Son and Home Front, which occurred during the mid-1950's, continues to Project Mix Fix, which occurred during the mid-1960's, and ends with the conversions of the 1970's. This chapter concludes with a brief review of the consequences of past conversions.

PROJECT NATIVE SON

Project Native Son, as one of the earliest Air Force conversion projects, coordinated the manpower requirements with congressional limitations and replaced 43,000 military personnel in overseas areas with approximately 31,300 foreign or native personnel during fiscal year (FY) 1954 and FY 1955. The conversion action considered the following:

requirements for security, requirements for mobility and quick reaction time of tactical units and their support functions, availability of local labor resources, local training capabilities and potentials, and other factors essential to such actions (16:50).

Although the action did result in monetary savings, there was a loss of productivity until the new personnel could be trained for the job. In addition, with the loss of military personnel in the airman and noncommissioned officer (NCO) grades, the officer to airman and NCO to airman ratios increased; there were apparently more officers than actually needed to manage the military personnel (16:51).

PROJECT HOME FRONT

While Project Native Son utilized foreign personnel in

civilian positions overseas, Project Home Front made similar substitutions in the United States beginning in FYs 1955 and 1956. The Korean War enlistments were ending, therefore a shortage of skills occurred. The same substitution criteria applied during Project Native Son were also applied in Project Home Front along with the orientation of skills to requirements. The newest criteria, however, considered overseas duty versus stateside duty skill ratios. The failure to control extended overseas duty assignments as a result of civilianization within the United States was considered an adverse factor which:

would affect re-enlistments adversely and in the long run compound a situation the correction of which was one of the objectives (16:51).

While the previous factors were applied to local situations, the last factor, involving overseas duty, appears to be a primary factor which concerns more than money or position requirements. Consequently, the affect of duty area (overseas versus the CONUS) on re-enlistments is a primary criterion for conversion programs that apparently originated with Project Home Front and is now a major part of AFR 26-1 as the Unsatisfactory Rotation Index program.

PROJECT MIX FIX

The next major Department of Defense (DOD) project, called Project Mix Fix, was initiated in January 1966 to support President Johnson's memorandum to expand the military without calling up the reserves. "Sixty thousand civilians were to be hired to serve in place of 75,000 officers and enlisted men," in noncombat positions in all the services (24:33). The South East Asia (SEA) conflict was the primary force behind the increased use of civilians. In the Air Force, Phase I and Phase II of Project Mix Fix ultimately replaced 18,790 military positions with 16,149 civilian spaces thus permitting the reassignment of military personnel to critical combat positions (29:27). Mix Fix was primarily developed to provide more personnel for the SEA conflict through the civilianization of CONUS positions rather than to trim the costs of the military.

This program reiterated the difficulty of rotating personnel from overseas duty stations where no existing stateside positions were available for the combat related skills. According to one report, Project Corona Harvest, there was no evidence of degraded mission capability in SEA, but the desire to have only highly qualified personnel in SEA resulted in "higher than authorized manning in the 5, 7, and 9, skill levels" in the aircraft maintenance field and created

"worldwide shortages in certain airman skills" (29:43). According to the same report, the aircraft maintenance, munitions, and transportation career fields had this result:

pronounced worldwide manning shortages . . . at the 5 (fully qualified) skill level through 1968. The shortages were greatest between 30 June 1965 and 31 December 1966, the most intense period of the SEA buildup (29:43).

Project Mix Fix converted positions in a large number of areas from "some generals by high-level Civil Service personnel" (11:1) to food service (which had 4000 of the position conversions), civil engineering, transportation, and transient aircraft maintenance in the CONUS. Most of the replacements were in the airman positions in "unskilled and semi-skilled fields"--in this case meaning type of field and not skill level (12:1). The program was intended primarily for two major areas: the maintenance and service skills. Headquarters United States Air Force (HQ USAF) gave only general guidelines to the commands including the number of positions that could be switched. In 1965 for example, the guidelines for conversion included these areas:

behind the fence nuclear maintenance, ground-to-air missiles, maintenance of transient, transport and support aircraft, fixed communications, motor vehicles, training devices, paint shops, etc. (9:1).

In addition, the guidance provided to the major commands included the potential for substitution based on considerations of force category (combat, training, and support), type of activity, and skills required within the activities. Specifically the preliminary analysis by HQ USAF considered the following factors:

1. Nature and size of the function and skills involved.
2. Present mix ratios, officers, airman and civilians.
3. Overseas/II [zone of interior] ratio of the function and skills within the function.
4. Availability of civilian skills within the overall labor market (34:2).

Although DOD and HQ USAF provided these general factors along with other conversion guidance to the major commands, there was no consideration given to the human resources aspects

which can also affect the military mission. Yet, during the first phase of Mix Fix, an inspection of the project provided by interviews developed the following general conclusions which provides some clues to the human resources aspects:

1. The expanded civilian work force resulting from Phase I, Project Mix Fix, improved the mission support capability of some functions in the USAF.
2. Career progression opportunities in some transportation and supply officer specialties were curtailed by Mix Fix.
3. NCO career progression opportunities in civil engineering squadrons were virtually nonexistent because of the extensive civilianization of supervisory positions.
4. Mix Fix reemphasized the need for an aggressive program for training military supervisors in managing civilian personnel.
5. Inadequate Headquarters USAF and major command guidance complicated the management of Phase I, Project Mix Fix.
6. The addition of significant numbers of civilians to the work force will require increased time and attention for labor-management relations at base level.
7. Mix Fix had an adverse impact on airman morale and first-term airman retention.
8. Increased civilianization reduced flexibility in the management of motor vehicle operations (23:543).

While these eight conclusions point out that conversions may result in improving some aspects of the Air Force mission, there are other aspects such as retention of personnel, morale, and labor management relations which can affect mission capability in ways adverse to the Air Force overall. An additional problem with civilianization was noted at the time of the Mix Fix program. While the program was seen as a job boom for the civilian populace, the new civil service jobs provided the opportunity for retiring servicemen to fill them; in effect, they were in the right place at the right time. Turning from Mix Fix of the mid-1960's, conversion reports and projects that occurred during the 1970's will be considered next.

CONVERSION ACTION POST 1970

A review and Report to the Congress of the military to civilian conversion policy was made in 1972 by the Comptroller General of the United States. The report supported the Congressional goals of increasing civilian manpower for military positions and essentially stated that the military was not doing enough to support DOD's conversion policy on the use of civilians. One area of the report introduced the following fact with respect to personnel survey teams and their apparent lack of consideration for substitutions:

where civilian or military designations of positions were considered, the survey teams were influenced by the existing force structure and usually recommended retention of the military or civilian incumbent (30:10).

The local authorities may have been considering aspects of mission effectiveness rather than the policy of substitution and the "advantage" of monetary savings. This is a conjecture which would support the premise of this paper that conversions may be detrimental to the Air Force mission even though it may be cost effective. The next major set of conversions began in FY 1972.

During the FY 1972 through FY 1975 time period, the Air Force was required to convert 17,000 military positions to civilian positions. The possibility of monetary savings was given as a reason because:

military manpower positions require additional manpower positions to be budgeted for training, transients, personnel support, medical treatment, welfare, and recreation (31:26).

It is interesting to note that of 14,171 military positions identified for conversion to civilian between FY 1973 and FY 1975, 6,834 or 48 percent were converted to the general schedule (GS) positions, 3,816 or 27 percent to wage grade (WG) nonsupervisory positions, while 837 or six percent were converted to wage grade supervisory (WS) positions and work leader positions. The remaining positions were either foreign national positions or were incomplete at the time of the study (31:34). Only one third were converted in blue-collar positions which might be considered comparable to the enlisted grades. A point can be extrapolated that conversions in the maintenance positions, where support to combat units is vitally necessary to the readiness of the USAF, would be even less of the overall conversion effort and the resulting monetary gains would be far offset by other factors such as morale.

During the same period of time that the military was converting positions to civilian positions, some commands were required to reduce their full-time permanent civilian positions without a "compensating reduction in workload" (48:126). In effect, both work forces were reduced and the capability of the services was reduced.

The number of direct-hire civilians rose to 1,275,000 in FY 1969 during the Vietnam conflict and dropped to 1,049,000 by FY 1973, at the beginning of the All-Volunteer Force. Civilian employment continued to drop during the AVF period and reached a low of 916,000 by the end of 1980 (27:VII-1).

As of 18 October 1982, civilian manpower was not expected to rise above 947,000 personnel for the FY 1982 to 1987. DOD intentions were to improve economy and efficiency in the support operations (27:VII-1).

The Services are nearing the maximum numbers of military-to civilian space conversions which can be absorbed because of previous conversions, contracting out, and other constraints, e.g., use of civilians in combat, protection of the rotational base, and imposition of congressional or budgetary restraints on numbers of civilians (19:60).

At the present time there are no major conversion actions that are going to take place in the Department of Defense. However, conversions appear to be an on-going effort in various units but in small proportions where local commanders could make effective conversions.

CONSEQUENCES OF PAST CONVERSIONS

The review of the major actions provided by this chapter shows their extent during the past and introduces some of the aspects that must be considered during conversions. The primary advantages with past conversions of military to civilian personnel was cost effectiveness and, particularly, the release of military personnel for combat duties. The past actions have also shown disadvantages of conversions in productivity, morale, retention, career progression, flexibility of management, and labor management relations. Those elements are some of the human resource factors which are not considered by conversion actions. The shortage of skills and overseas duty rotation problems produced by past actions have been addressed by AFR 26-1 with the Critical Military Skills program and the Unsatisfactory Rotation Index program. The next chapter discusses manpower availability which, in

turn, affects the mix of military and civilian personnel available to fill military positions.

Chapter Four

A DISCUSSION OF MANPOWER AVAILABILITY

INTRODUCTION

Adequate manpower must be available for both the military and the civilian work force to achieve an optimum mix of DOD personnel. To operate effectively, DOD must "have the right types of people available when and where they are needed to do the jobs that are of the highest priority" (10:73). In addition, as future weapons systems increase in complexity, the military will need highly qualified personnel to support, maintain, and effectively operate those systems. Therefore, the Department of Defense defines a "Total Force" policy based on three primary components: "active military, reserve component military, and civilian employees" (28:I-2). This chapter discusses the active duty military, the All-Volunteer Force (AVF), the current labor market, and civilian employees.

ACTIVE DUTY MILITARY

The active duty military comprises the personnel force that is trained and ready for immediate duty anywhere to support national interests. Their duty can include deployment anywhere in the world at any time which, in effect, is a sacrifice and a loss of freedom that the civilian work force does not have to suffer. General Usher's statement, during testimony to the Senate Committee on Appropriations about the military retirement system, demonstrated the sacrifice and extraordinary conditions of military service to Congress:

where tonight a person could be ordered to go to Saudi Arabia for a year without our asking goodbye, yes or no, because combat could occur and people put their lives on the line, because there is no 8-hour day, there is no overtime for military people, because we can send them to a remote site in Turkey that has no commissary, no BX [Base Exchange], no hospital, that such things as a military retirement system, which is recognized to be a generous retirement system, is in recognition of spending a career under those conditions (43:391).

General Usher's statement shows the extreme conditions which military personnel must endure. The active military represents approximately 54 percent of the total Air Force manpower resource (43:291). In order to support this significant part of the force structure, the Air Force relies on the AVF.

THE ALL-VOLUNTEER FORCE

The availability of military manpower for the services is dependent on the success of the AVF. Although the previous draft provided the required numbers of people, most personnel did not view military service in a positive manner, rather it was "a kind of slavery" that was not a measure of a free society in peacetime (17:18). The AVF appears to be working at the present time since the Air Force goals for recruiting have been met (27:1). The USAF achieved 98 percent of its goal in FY 79, 100 percent in FYs 80 and 81, and 102 percent of its goal in FY 82 (13:29). These achievements

demonstrated clearly that in a democratic society, citizens will enlist and remain in the service of their country voluntarily when given the proper encouragement, incentives, and respect (41:597).

As a result, the Air Force has people who are interested in being a part of the Air Force resulting in better attitudes and better morale. This in turn provides people who are more interested in their work and are more productive. Consequently, job performance increases and the capability of the service improves. The education level of the enlistees has also improved. During the first nine months of 1982, for example, 93 percent of the enlistees were high school graduates (27:II-5). In addition, "military youths have higher educational aspirations than civilian youths who are employed" (27:II-17). The overall result is an improved manpower force which will tend to stay the Air Force. With respect to management, it is far easier to manage a volunteer force than a nonvolunteer force which lacks the overall interest and attitude of their work.

ECONOMY AND LABOR MARKET EFFECTS

Reliance on the AVF is affected by the current economy and the labor market and may only be temporary. The outlook for "retention of the critical mid-career people in the career force is expected to be adequate to meet both experience and overall strength requirements over the next five years" (27:I-5). If the civilian labor market improves, that is, the prospects increase for the high school graduate to find a

civilian job, then historical trends indicate the recruiting rate for the services will go down. Additionally, as the civilian prospects increase there "will be more leakage of experienced personnel, but that leakage will primarily affect first- and second-term personnel" (33:8). A reduction in personnel levels in the aircraft maintenance fields will reduce the capability of the Air Force to accomplish its mission. The present economy is improving steadily and the unemployment rate is steadily continuing down; therefore, the labor market also appears to be improving steadily. As of December 1983, total civilian unemployment (reported by CBS news) was 8.2 percent; down from over 10 percent the previous year. The recent low state of the economy and high civilian unemployment seem to be the primary factors behind the improved recruiting and retention rates. The author's research indicates that the military is a source of employment for those people who want a steady job with steady pay during an unstable time period.

While the overall capabilities of the services are improving based on the high quality of the recruits coming in the AVF, consideration also needs to be given to the future of the manpower pool in terms of size as well. The size of the pool is decreasing since "the number of 18 year old males over ten years will fall by 19 percent (from 2.1 million to 1.7 million) with most of the drop occurring before 1985" (40:277). In addition to the reduced manpower pool, industry has a growing "demand for expensively trained and highly experienced personnel" (43:377). This means the demand for the first- and second-term personnel will increase, preventing retention of personnel that are trained by the service for their positions. The military will also be competing against industry, schools (both technical institutes and colleges), as well as other private sector employers for people. If the nonmilitary competition is successful with their recruiting, this will create an even more difficult recruiting base in the form of a small manpower pool from which the the Air Force must recruit its personnel.

If the quantity of personnel is reduced, the requirements for quality will in all probability have to be reduced in order to recruit the required number of personnel (19:57). As a further consequence, the lower quality recruits will require more intensive training to bring these lower quality recruits to the standard level of expertise needed to operate the technical systems of tomorrow. In FY 1983, the Air Force raised the average length of its skill-training courses from 11.3 to 12.3 weeks primarily in the maintenance-related courses (21:111-182). The increase in training requirements creates a drawdown on the experience pool within the Air Force and creates a void which is nearly impossible to fill either due to the lack of experienced personnel or overexperienced personnel

who cannot fill the position due to their supervisory requirements. As of 30 September 1981, the Air Force had critical skill shortages in aircraft systems maintenance NCOs (23 percent), and avionics systems NCOs (29 percent) (19:59).

CIVILIAN MANPOWER

The availability of civilian manpower is similar to the Air Force problems, that is, dependency on the current economy and the ability of the government to recruit civilian employees. Furthermore, civilians provide support services in functions that do not require military personnel and "support direct readiness-related functions" (28:II-8). Determining the proper mix of military and civilian personnel becomes a difficult problem when the recruiting problems of both elements is based on changing economic conditions. Department of Defense policy with regard to the manpower mix of military and civilian personnel is stated as follows:

to maintain as small an active peacetime force as national security policy, our military strategy and our overseas commitments permit. Our overall military strategy dictates the missions that must be performed by military people, reserve or active, because they are trained to perform their duties in confrontation with the enemy. DOD policy is to consider active military manpower as the last resort when filling a support manpower requirement (28:I-5).

Approximately one third of the total manpower resource for the Air Force is civilian (27:I-13). As of 31 October 1981, there were approximately 86,849 full-time civilian blue-collar employees in the Air Force; aircraft maintenance personnel comprised 15,258 in the generic positions of aircraft overhaul, engine overhaul, and aircraft ordnance systems mechanics (44:131). By 31 March 1983, the Air Force had 88,613 wage board personnel (13:35). Similar to the Air Force shortages, "The services are short approximately 135,000 civilians to perform current peacetime support functions and provide an acceptable basis for mobilization" (19:60). Mobilization includes "assembling and organizing personnel, supplies, and material" (21:III-183).

Even though the military is short of civilian personnel, Congress maintains a ceiling on their numbers each fiscal year. Furthermore, with ceilings on the number of civilian personnel, efficient operations can be impeded as follows:

- a. The conversion of military to civilian is discouraged.

b. An imbalance is caused between program demands and personnel levels.

c. Military manpower is borrowed to fill vacant civilian positions.

d. Increased reliance is placed on overtime and temporary workers (28:1-3).

While ceilings can enhance the efficiency of a unit by limiting personnel, the last two listed items can have a detrimental effect on the morale of the unit causing a decrease in the productivity and quality of work. Therefore, the objectives of the civilian personnel program must work against those disadvantages.

Air Force Regulation 40-101 states the objectives of the civilian personnel program are as follows:

recruit, develop, motivate, utilize, and sustain a balanced, structured, and high quality work force to carry out the Air Force's mission efficiently and effectively. In achieving this objective, the principles of the merit system and certain prohibited personnel practices must be observed strictly (36:1).

Here a disadvantage should be noted that if the civilian DOD wage level falls below an acceptable rate, those employees are not bound to remain with the service to fulfill a specific commitment as the military personnel must do. Other factors can also affect an employee's decision to leave, including the following: a dislike for the requirements that may be imposed for military reasons, deployments, inspections, or a constant change of military personnel in the unit and at the supervisory levels. While military personnel would be required to fulfill their commitments, the civilian does not have the same commitment and can change by leaving for a more lucrative job elsewhere. Consequently, civilian manpower can have fluctuations at the individual level that can have as much of an effect on the unit's mission as can the military person who often moves. In the author's opinion, even though some fluctuations occur, a DOD civilian position is still likely to be more stable than a position in the common work market.

NATIONAL EMERGENCY SITUATIONS

While the previous discussion is oriented to the peacetime situation, manpower requirements during a national emergency or wartime situation can alter the manpower situation drastically.

Using military personnel in military designated positions will provide the immediate requirements for maintenance personnel but scenarios which predict the manning requirements several months into the conflict show shortages, which ultimately means a reduced capability to support the mission. As a result, additional personnel will be needed to support any conflict of major proportions. For the Air Force, the required number of personnel is approximately 61,000. A system of Defense Planning and Programming Categories (DPPCs) is used with no individual being counted more than once (28:I-7). Personnel shortfalls also exist in the "logistics and depot maintenance areas which affect the minimum manning necessary to accommodate wartime surge requirements" (43:362). The overseas employment of civilian personnel is also an issue during a period of mobilization. "These employees, including those assigned to critical jobs, may have to evacuate overseas areas with other noncombatants in the event of mobilization or hostilities" (19:60).

SUMMARY OF MANPOWER

Adequate military and civilian manpower is affected by the current economy and labor market conditions. Military manpower is also subject to the AVF which may be enjoying only a temporary success. When coupled together, these facts create changing conditions that constantly affect a balanced mix of military and civilian personnel, that is, conditions which favor one of the personnel realms do not always favor the other. Since it is difficult to balance the manpower mix, it is also difficult to make a comparison of military forces required for combat duties versus those forces, including both military and civilian personnel, required to support the combat forces. Although the Air Force tends to have fewer personnel in direct contact with the enemy than will the Navy or the Army, the Air Force is still required to have a balanced mix of civilian personnel and military to provide a cost effective support structure.

Combat-to-support ratios, however constructed, are merely statistical by-products of this force/manpower structuring. Manpower resources are an estimate of the most efficient mix (26:175).

Over and above the manpower conditions just discussed, the final mix of civilian and military personnel is not necessarily the most productive manpower mix with regard to other human resource factors. Before discussing those factors, the next chapter introduces the maintenance concept of operations which also affects human resources.

Chapter Five

MAINTENANCE CONCEPT OF OPERATIONS

BACKGROUND

The primary area of interest for this paper has been the aircraft maintenance field of operations. The intent has been to introduce various concepts and conversion actions relevant to civilian activity in general terms across the Air Force. This chapter turns toward the maintenance field with the aim of staying at a general level of investigation without going into specific job positions and skills due to the limitations described in Chapter One.

Maintenance has an influence on, or can be influenced by, virtually all Air Force activities. It is a huge business by any form of measurement, and its performance is a primary determinant of our worldwide war-fighting and deterrent capability (1:14-18).

MAINTENANCE PREPARATION AND READINESS

Maintenance organizations must be properly prepared to maintain a high state of unit readiness in the event of a national emergency at any level. This preparedness includes the concept of operation which affects the unit's operational requirements. Unit personnel must not only be proficient in their work according to the current operational requirements, but they must also be proficient in the additional requirements that may be levied on the unit such as a deployment. The enlisted fields of maintenance are complex and numerous. While these areas are at the task level of work rather than the management level, the outcome of their conversion to civilian positions could have a significant effect on the capability of a unit to accomplish its mission.

The Air Force recognizes three requirements for skill levels: career knowledge, job proficiency, and job experience. The maintenance functions normally employ personnel at the 3-level, 5-level, or 7-level of experience. The 3-level is a graduate of basic technical training who normally has less than two years of experience. An individual at the 5-level skill

has two to seven years of experience, is fully proficient, and is capable of unassisted performance. The person with a 7-level skill usually has five to fifteen years of experience, is fully proficient and is capable of supervising others. Finally, an unqualified individual at the entry level is a 1-level, while a 9-level individual usually has ten years experience or more and has supervisory or management level skills (25:3). The Air Force has 267,870 enlisted personnel under the age of 25 (13:30). Management must depend on a force of personnel who have attitudes and values that were developed during the era of the Vietnam conflict.

The unit's level of proficiency required for the maintenance functions can be severely handicapped by a deployment and its resulting conditions of service. Whether or not a unit is deployed, the duty hours for maintenance personnel will be limited by the peacetime safety restrictions for flying and the heavy requirements for daytime training flights. The normal work schedule is based on a 40-hour workweek with two shifts (37:1-2). Consequently, a considerable amount of shift work is involved, and the improper management of personnel assignments for shift work will create personnel problems such as declining morale, productivity, and tardiness. Equipment and mission capability will suffer as a result of these personnel difficulties.

Equipment maintenance includes the functions: removal and replacement of components; repair of components; inspection; servicing; and calibration/adjustment/lubrication. Each of these functions occur at different times and rates which requires different specialties to complete the job. The primary product of equipment maintenance is combat ready status for the aircraft and any associated equipment. Therefore, equipment maintenance means "our efforts in keeping AF material in mission-capable status" (1:14-1).

Maintenance Management

Management techniques have developed over time to increase the production or output of specific items for an organization. In this case, Air Force maintenance is the organization and management has the responsibility of increasing the productivity of maintenance personnel and maintaining the reliability of combat systems for maximum effectiveness, deployability, and economy (38:5). According to AFR 66-1, there are several objectives of maintenance of which "the key to mission success is the sustained ability to provide mission ready equipment at the time and place it is needed." In addition, maintenance must increase its capability to support operational requirements, stay proficient in wartime skills (such as alert status, mobility, or sustained sortie rates),

and identify future needs for personnel, equipment and technology (38:5).

In response to maintaining mission ready status, a goal of USAF maintenance is "to reduce, or eliminate unit dependence on off-equipment repair" (38:6). Off-equipment maintenance falls into two categories; the first of which requires tasks which cannot be accomplished with the item on the aircraft; however, the local unit has the capability to perform the maintenance while the item is removed. The second category requires more technical or specialized tasks which the local unit cannot perform; therefore, the item is normally sent to a major repair center or Air Logistics Center for overhaul. This type of maintenance removal of the item requires at least a temporary replacement item or it results in degraded mission capability. On-equipment maintenance requires actions to repair the item without removal from the aircraft (or other weapon resource) and is accomplished by the local unit. As a result, the weapon system has a reduced down-time thus maintaining a higher level of readiness for the organization. Reducing the off-equipment maintenance is a goal which reduces the dependence on the Air Logistic Centers (ALCs) which are generally far removed from the unit (38:6).

Air Logistic Centers

The ALCs belong to the Air Force Logistics Command (AFLC), have different mission support requirements, and consequently, can utilize civilian personnel to accomplish their mission. Among other responsibilities, AFLC has the responsibility for the depot level maintenance (the off-equipment maintenance as well as major overhaul of aircraft), centralized surveillance of Air Force maintenance operations, and "the availability of technically competent personnel and resources for support of wartime surge requirements" (1:14-4). Since the operational combat units are near the combat zone, personnel in these units usually have the Critical Military Skills (AFR 26-1) which preclude the use of civilian technicians. During peacetime and within the CONUS, operational organizations are looked upon as being available for conversion to civilian occupation; however, their requirement for deployment to a combat zone precludes a conversion action. Both the ALCs and the operational units must consider "available manpower, normal shift scheduling, normal work hours, and other resource availability and capacity" (38:7).

As in any organization, it is management's responsibility to insure that personnel are not overworked (or even underworked) as that is a factor of the quality-of-work life and results in reduced morale which reduces productivity and mission capability. These costs are difficult to measure in

any organization, but the cost of reduced mission capability due to mismanagement of maintenance resources is critical to Air Force operations.

Air Staff/Major Command Responsibilities

The Air Staff has the responsibility "for developing and providing overall policy, procedures, and programming actions for the worldwide USAF maintenance mission" (1:14-3). Air Staff requirements are sent to the units through the major commands (MAJCOM), who are responsible for implementing the directives and establishing command policies and procedures. Neither of these two levels of organization are considered as combat units similar to the operational units; therefore, there are fewer critical military skills in the unit. With regard to the MAJCOM level of management:

The success of MAJCOM maintenance management is related to the way Air Force guidance, AFLC technical direction, and MAJCOM policy are translated into direct unit production and performance (1:14-10).

CONCEPTS OF UNIT ORGANIZATION

AFM 66-1 Concept

Organizational span of control is one of several considerations for unit maintenance organization structures. In the AFM 66-1 concept of operation, there are four aircraft maintenance squadrons: the Organizational Maintenance Squadron (OMS) "owns the aircraft" and is responsible for its records; the Field Maintenance Squadron (FMS) maintains systems other than avionics or munitions; the Avionics Maintenance Squadron (AMS) maintains the avionics equipment; and the Munitions Maintenance Squadron (MMS) has personnel responsible for munitions aspects of the aircraft (1:14-13). The Strategic Air Command (SAC) and Military Airlift Command (MAC) are the primary users of this maintenance operating system since they are not required to have highly dispersed main operating bases similar to the tactical forces. This maintenance system of four squadrons, arranged by functional responsibilities for aircraft maintenance and having a narrow span of control, retains the advantage of highly specialized maintenance functions.

The Combat Oriented Maintenance Organization

The tactical forces such as Tactical Air Command (TAC) or Pacific Air Forces (PACAF) recently changed their concept to

the combat-oriented maintenance organization (COMO). This concept eliminated one maintenance squadron and involves a matrix organizational design. The Aircraft Maintenance Unit (AMU) integrated personnel from all four of the previous functional squadrons for on-equipment maintenance. The AMU is an autonomous unit which is combined with at least one other AMU to form the Aircraft Generation Squadron (AGS) and is aligned with the fighter squadrons by unit when possible. Remaining activities are assigned to the Component Repair Squadron (CRS) which is responsible for off-equipment support, and the repair of avionics and aircraft systems components while the Equipment Maintenance Squadron (EMS) handles the remaining aircraft systems, ground-support equipment, and munitions activities. This alignment concept maintains a narrow span of control, involves matrix organization, and has decentralized the maintenance functions more than the previous concept of functional maintenance. This concept has an advantage through its increased capability to disperse maintenance units with the operational flying unit which provides flexible combat maintenance support. The COMO concept with autonomous units of personnel working closely together encourages teamwork which will improve productivity and unit capability (37).

The Maintenance Unit Versus The Work Force

With regard to the unit level of maintenance, it should be noted that the concepts just discussed involved combat orientation including the unique conditions of employment such as deployment to support operational units.

The key to successful long-term mission accomplishment is a stable, experienced work force. A continuous loss of skills is caused by separations, reassignments, and cross training of maintenance people. . . . Maintenance personnel training and retention depends upon classification, utilization, and training policies which are compatible with missions, technology, and economy (37:1-3).

Civilian personnel are not used in combat positions; however, future situations may cause the conditions of their utilization to change. Subsequently, the retention of civilian employees under these conditions will become a serious consideration similar to military personnel. Should the civilian employee of a maintenance unit decide not to continue his government work, his vacancy could leave a void in a position on which the remaining members of the unit depend for assistance. In this situation, substitution with a military person only tends to relocate the void and not solve the problem of a missing person and skill, thus disrupting the stability of the unit. This problem should not be a difficulty at the combat unit levels

because of the present Critical Military Skills program and the limitation of military personnel in combat positions. However, at levels above or outside these operational units, civilian employment can affect the unit's personnel through the staffing functions. The lack of experience and knowledge by civilian personnel about the combat maintenance skill fields creates an unfavorable situation through staffing functions which can affect attitudes and thus morale, detracting from the unit's readiness in an indirect manner.

MAINTENANCE SUMMARY

The actual determination of a unit's readiness and combat capability is a judgment decision that depends to a large extent on many factors including the equipment, environment, personnel, training, and management. The maintenance managers at all levels of command noted in this chapter still have the responsibility for effective human resource management and the development of policy which affect a unit's readiness and combat capability. The factors which affect human resource management such as morale, discipline, and several others are addressed in the next chapter.

Chapter Six

FACTORS TO CONSIDER WITH CONVERSIONS

INTRODUCTION

The previous chapters reviewed the concept of conversions, manpower conversion actions and reports, discussed the manpower availability problem, and reviewed the maintenance concept of operations. The chapters served to provide a background to conversion actions overall and to introduce some of the factors that must be considered when conversion actions are being contemplated. The conversion of military positions to civilian positions tends to develop only one view of the entire effort that may be involved, in particular the factor of cost. Certain factors are difficult to evaluate and can support either military or civilian occupation of a job while others may have either advantages or disadvantages. Consequently, nineteen factors affecting military to civilian conversions are discussed in this chapter under three topic areas. The first topic area refers to the exceptions for military to civilian conversions including two factors that are outside the scope of this paper as well as two factors having neither an advantage nor a disadvantage to conversions. The second area includes eleven disadvantageous factors to conversions, while the remaining topic area includes four factors that are considered advantages for military to civilian conversions.

EXCEPTIONS TO CONVERSIONS

Heritage

First among these factors is that the heritage of our country has always stood for civilian control of the military forces, that the military should never be in control of the nation. Consequently, converting a military position to a civilian position is in that view the proper goal to achieve. It is a reason that pervades the thoughts of the common citizen so strongly, that it is often difficult to convince the American people that the freedom they have can only be exercised because the military protects that way of life. Sir John Slessor, Marshall of the Royal Air Force, once stated, "There is a tendency to forget that the most important social

service that a government can do for its people is to keep them alive and free" (Military History and Theory, Air Command and Staff College, Maxwell AFB, Alabama, 1984, pp. viii). Maintaining civilian control of the military is a factor which affects conversions on a macro-scale but it is also one which remains as a viewpoint that is outside the bounds of this paper for any further discussion.

Cost

In the past, one of the primary considerations for military to civilian conversions has been cost. It was generally considered cheaper and more efficient to use civilian personnel for conversions. While this paper is not going to address the cost factor in depth, it cannot be entirely disregarded either. Recent economic pressures have required in-depth looks at the cost information to determine the cheapest means. Accordingly, each position can have a cost attributed for either a military or a civilian occupant as per the guidelines of OMB Circular A-76 and/or AFR 26-1. But testimony before the Defense Manpower Commission in 1975 indicated that "large savings are not likely to result from a wholesale substitution of civilians for military personnel" (22:16).

To add to the confusion, military personnel costs are funded by specific appropriations while "civilian costs are spread among several appropriations according to function performed" (28:IX-1). The Central All-Volunteer Task Force, "A Report of Substitution of Civilians for Military Personnel in the Armed Forces," commonly known as the Moot Report, "was directed from the outset to determine the costs relevant to military/civilian tradeoffs" (45:6). One-to-one conversions can directly compare certain specific costs, such as base pay, as an element of possible savings. Military and civilian personnel have different retirement programs, health and medical care programs, income tax adjustments, and other fringe benefits, to name only a few, which creates a myriad of possible comparisons versus numbers of positions when conversions are considered on a larger scale. Even on the one-to-one position exchange, the cost of training a military person for the position is different than the civilian due to the requirements for the military mission.

While costs such as direct pay, allowances and fringe benefits are easily calculated, other components of the total cost of personnel such as the training required to fill the billet, the cost of support and the appropriate attribution of military retirement costs are not. Next, after we accurately estimated current costs we must determine how they are likely to change in the future; while one class of personnel

may at present appear to be less costly for filling a particular billet, a policy action that would attempt to take advantage of this situation could have effects that would significantly reduce or eliminate the intended saving (45:2).

Consequently, while cost comparisons are an important item of consideration, costs were not considered any further by this paper due to the scope of the problem. For similar reasons, contracting out, the third option addressed by AFR 26-1, was also considered beyond the scope of this paper.

Environment

The environment, or situation as previously mentioned, of the position may be an advantage to either military or civilian personnel. Civilian maintenance personnel at the depot level receive items for repair for many reasons (aside from routine maintenance actions) which in turn provides exposure to a multitude of field problems. They have more time available to complete their work but they do not necessarily see the results of their work in the field. In the author's opinion, at the depot levels, civilian maintenance personnel may also fail to see the vital importance of their actions which in turn may also yield a lower quality product.

In contrast, the military maintenance person who has seen the results of his work under simulated or real combat conditions knows the importance of his work and observes the end results every time his aircraft returns. Military personnel receive combat oriented training and experience under simulated and real combat pressures that the civilian does not normally receive. The military person spends more time at the squadron level and does not have the same amount of time a civilian will at the depot level, but he has experienced the on-site operational pressure important factor in conversion actions, not only because of the job conditions where the person works but also because each person has a different environmental/operational background. Consequently, the environment may be in favor of either civilian or military personnel.

Skill Variety

Skill variety and a changing workload are parts of the core job dimension leading to meaningful work and therefore work motivation. In turn, this becomes job enrichment as described by Hackman and Oldham (4:172). As a result, military personnel appear to have a disadvantage with specialized training that leads to positions without the skill variety that the civilian field appears to have. Specialized training can

have two additional consequences as a result of technological advances. First, civilians may not be allowed to perform the maintenance functions because of its specialized nature; second, military personnel may not be able to perform the maintenance at the higher levels of maintenance due to their lack of training across the spectrum of requirements that civilians may have received. The military, however, offers a broad experience background through job changes due to rotation requirements. Therefore, this factor is considered neither an advantage nor a disadvantage to civilian conversions.

DISADVANTAGES TO CONVERSIONS

Equity

Civilian and military personnel may perceive a level of equity that differs from each other for several reasons. Equity is a theory of motivation which examines an individual's perceptions of discrepancies with regard to efforts and rewards as compared to another person. The theory is based on "the assumption that individuals are motivated by a desire to be equitably treated at work" (5:97). The reasons which lead an individual to perceive differences can include the following: level of responsibility, knowledge required for obtaining the job, knowledge required for the application of the job, fringe benefits, recognition, or pay. These items develop into the yardsticks which personnel use to measure their comparisons with other individuals.

The differences between the military and the civilian workers are inherently full of discrepancies beginning with the nature of the mission of the civilian work force versus the Air Force. The civilian work force is typically considered a support function and the military is considered to be in the combat arena and available for national defense. In terms of duty time and pay, military personnel are "on call" for 24 hours a day for the same pay while civilian personnel will receive overtime pay for work performed outside the normal duty hours. In this case, the military individual sees pay in relation to duty hours as an inequity and is only one of many areas where equity differences can be perceived.

The perception of inequity, for whatever the reason, causes tension in various degrees between military and civilian personnel which is typically oriented from one group towards the other group. The tension, if it exists, is one factor which the unit manager must accept and try to resolve. Perceived inequities between personnel become dissatisfiers on Herzberg's motivation scale. Thus, inequities perceived by unit personnel become disadvantages which must be resolved by

the unit commander; but, when resolved--equity is achieved--it is not an advantage that can be utilized by the unit. Although there is no direct advantage or disadvantage to either civilian or military personnel, the lack of equity resolution does affect morale; therefore, it is a disadvantage to the unit and becomes a disadvantage for military to civilian conversions. Morale is discussed later in this chapter.

Grade Comparison

Associated with the equity factor is the grade comparison between personnel in similar positions doing similar work. Grade comparison is a form of equity which personnel naturally make between themselves and those who work around them in the immediate workplace as well as the local area. This factor was recently investigated to resolve the problem of military and civilian grade comparability and pointed out the problem of equivalency when comparing civilian and military grades for job descriptions (46). Grade comparison introduces a situation similar to equity and is considered a disadvantage to the unit. Therefore, grade comparison is a disadvantage for a military to civilian conversion. Another form of comparison appears with performance appraisals.

Performance Appraisals

Performance appraisals can have a significant effect on the worker whether military or civilian, but the primary impact may occur while both types work side by side. Performance appraisals in the military tend to be inflated and at any rate they are a different appraisal system than the civilian performance appraisals. Vroom in 1964 developed the expectancy theory of work motivation which says that individuals will perform at a certain performance level if the positive outcomes associated with that performance level outweigh the negative outcomes (3:224). Intense dissatisfaction and feelings of unfair treatment, can develop from differing sets of comparisons (3:157). As a result, personnel working in the same office or at essentially the same job will desire to have a performance appraisal system consistent with their workmates. This is not the case in work areas employing both civilian and military personnel, consequently, differences can result which may ultimately lead to anxiety and resistance by one or the other with regard to the performance appraisal.

Many workers feel that appraisal systems used by organizations measure performance incorrectly, a major cause of their resistance. Resistance to systems perceived to be inaccurate is of course likely to be especially high in those situations where the results of the performance appraisal system

have important consequences for the organization's members (3:226).

Performance appraisals can effect the worker at any time but the impact may have a greater effect on the unit when military and civilian personnel are working side by side and receiving appraisals which are different or are perceived to be different for essentially the same job performance. Similar to the equity factor previously discussed, neither military nor civilian personnel have a distinct advantage or disadvantage; however, the morale factor of the unit is affected; therefore, this factor is a disadvantage to the conversion action.

Performance Standards

The worker's perception of performance standards involves a psychological contract which develops between the person and the organization about the job.

A psychological contract reflects what an employee accepts as the legitimate boundaries of the informal agreement between him- or herself and the organization. Different ideas exist of what is legitimate for an organization to demand of an employee (3:227).

There are a large number of variables related to personnel performance including "training, experience, skill-level and rank distribution, assigned versus required manning, shift workloads," and, as a result, performance is difficult to assess (37:A3-3). The perceived similarities or differences between individuals working the same job evolve from the psychological contract and the previous variables. If there are no other adverse job-oriented factors which cause an individual's appraisal to be different from the co-worker's, then according to Vroom's theory, the individual will probably change (lower) his performance level according to the supervisor's appraisal (5:94). This reduction of performance will cause a reduced level of output and therefore reduced unit readiness. Consequently, this factor is a disadvantage to conversion actions.

Morale

The tension which can result from the previous factors leads to the next factor which affects conversions, the factor of morale. Morale has been defined as "the tenacity into which a group pursues its collective aims" (47:4). Morale is a factor which is based on many conditions within an organization and can be very difficult to resolve. Job satisfaction and morale are terms which are used interchangeably with job

satisfaction (4:88). Personnel attitudes, turnover, absenteeism, tardiness, and grievances are all measures of job satisfaction which refer "to the extent to which the organization satisfies the need of the employees" (5:31). A reduction of attitudes as a result of inequities perceived by either civilian or military personnel will result in reduced morale and a corresponding reduced level of performance and readiness by the unit.

Morale is a problem which must be dealt with by unit commanders at all levels of command. During the Mix Fix conversion project, the orientation and consideration of supervisors towards their personnel was addressed as follows:

Each military and civilian supervisor who directs the work of civilian and military workers, or is in any way concerned with their management, must have the right philosophy, the right attitude, without which full effectiveness cannot be achieved (15:1).

The intermingling of military and civilian personnel creates the conditions for personnel of two very different groups to compare their backgrounds and current positions. The resulting comparisons of job terms (such as those in job descriptions, working conditions, or the inequality in pay for similar jobs) causes the difficulties that need to be considered with conversion projects. A perceived lack of equity between two groups of personnel is a cause of reduced morale which results in individual decisions to eliminate the inequity. For example, the easiest method for young airmen to eliminate the problem is by leaving; thus, the retention rate goes down. As previously noted at Chapter Three, this fact is supported by the inspection made during the first phase of Mix Fix: "Mix Fix had an adverse impact on airman morale and first-term airman retention" (23:544). Reduced morale is a disadvantage to the unit and, therefore, a disadvantage for military to civilian conversions.

Overseas Service

The unique condition of overseas service is a factor closely related to the mobility factor which can apply to civilian personnel. Service overseas can have some educational and personal benefits for some personnel who desire to travel. But a prolonged absence from the CONUS can also have side effects on attitudes and morale. Overseas duty stations must follow the living conditions of the local country. At first this may seem to be "adventurous" however there is a sense of instability that exists. Therefore, this factor also is related to Herzberg's theory of dissatisfiers and motivators. Initially the assignment would be perceived as a status symbol

for the worker among his peers, but the overseas conditions are not always continuously favorable for either military or civilian personnel. Ultimately, the excitement simply "wears off" with the result that the conditions of service now become a dissatisfier of varying degrees. Although these conditions are entirely dependent on the individual and his perception of the duty assignment, they remain on the dissatisfier portion of Herzberg's theory rather than on the motivator spectrum.

It should be noted that as time passes, some personnel reach their "human limits" with reference to the amount of rotations they will support without a CONUS location for their combat related skills where they can have relief from overseas duty, which is also true whether or not the person has a combat related skill. The lack of rotation to the United States is also a morale related factor which must be a consideration for conversions. Thus, an undesired attrition of personnel will occur which results in skill shortages and higher turnover rates, and in turn, this adds to the void of experienced personnel, which was previously noted at Chapter Four, that may be needed for other combat related positions. The civilianization of aircraft mechanic jobs in the United States would create an unbalance in the number of maintenance skills overseas, and "AF would not have the needed number of CONUS replacements to fill them as overseas men rotate" (9:1). The Unsatisfactory Rotation Index program outlined by AFR 26-1 directly concerns this problem and in theory prevents the amount of excessive overseas time which detracts from the overall personnel morale and the quality-of-work life. Overseas service is considered a disadvantage for a conversion to civilian personnel.

Unions

Another factor which affects conversion actions is the union. Title VII of the Civil Service Reform Act of 1978 permits the organization and representation of federal employees by a union, as well as their right to arbitrate grievances (1:20-2). Approximately 20 percent of the Air Force civilians are represented by a union. The employees have the right to form, join, or assist a union and they can bargain collectively or be represented by the union. Mandatory negotiations must be made with regard to personnel policies, practices, and working conditions or any matter affecting an individual's decision to seek, accept and/or maintain employment. Failure to bargain by either Air Force management or the union is an unfair labor practice according to the law. All contracts have grievance procedures which must be followed; contracts take precedence over regulations up to the DOD level. Negotiations are prohibited if the negotiations adversely affect the budget or degrade the mission, organization,

security, discipline, or other significant areas. Fortunately, the civilian unions have not chosen to exercise all of their rights with the exception of the air traffic controllers which President Reagan determined was significantly dangerous to the public. In that case, the controllers were fired but a heavy requirement was placed on the military to provide assistance causing a large drain on the capabilities of the Air Force in this field. Strikes are prohibited "based on the premise that government employees provide essential services in the public interest" (1:20-8). Strikes can be prevented by following sound management principles.

In general, supervisors are required to follow sound management principles in their daily conduct and operations with civilian personnel. One of the specific limitations requires a supervisor to coordinate proposed decisions which affect civilian personnel with higher level supervisors and with the central civilian personnel office when required (35:2). This requires increased coordination for military supervisors which in turn creates an increased workload for the military supervisor. This is a disadvantage for military supervisors, but as long as managers follow sound management principles, there will be no need for concern about unions.

Without sound management, unions have the potential to create difficulties in the Air Force, and in the maintenance field, a strike could be damaging to the readiness of the Air Force. At the depot level, such a strike by civilian employees would not have an immediate effect on the field but would have a long term effect on the maintenance pipeline that is critical for logistics support. Strikes by employees in smaller units in the field would have more immediate effect on the unit's own mission, and would probably be covered by military personnel. While civilian personnel can bargain for better terms, working conditions, or even leave, the military member is bound by his oath and his service contract to follow official orders (27:xvi). Unions, through the possibility of strikes and the increased participation by military personnel to negotiate terms, are considered a disadvantage to conversion actions.

Career Progression

The substitution of military for civilian personnel also affects the career progression of personnel. "A mechanic begins as an apprentice, works up to the skilled (five) level and finally to the technician (seven) and superintendent (nine) levels" (9:47). An improper rotation of personnel interrupts the flow of advancement which can significantly affect the supervisory levels ultimately causing a reduced response capability by aircraft maintenance personnel that in turn affects the mission of the unit and the global mission of the

Air Force. Consequently, the policy during Mix Fix of sending only highly qualified personnel to SEA was changed to allow the assignment of semiskilled airmen who would receive on-the-job training in SEA. This provided a larger pool of personnel which could be sent to the area and maintained a resource level of qualified personnel in the CONUS which could support the Air Force global mission. Conversion to civilian personnel is a disadvantage for the career progression of military personnel.

Discipline

The maintenance of discipline requires consideration by each commander in relation to his unit or command. Disciplinary actions are handled in a different manner by the military and by the civilian. The intent of civilian discipline is "to attain and maintain a constructive working environment" (1:19-10). In essence, this is also true for military personnel, but it is oriented towards the combat environment in order to prevent a breakdown of discipline that could have tragic results. With the civilian work force, progressive discipline typically follows the steps of an oral warning, written warning, disciplinary layoff or demotion, or discharge (28:138). These steps are part of the grievance process in most collective bargaining agreements with civilians but with the military, there is no union to assist the worker. In the military, infractions of discipline are punishable by the Uniform Code of Military Justice. "The state of discipline in the military services affects peacetime readiness and the fighting capacity of our military forces" (27:II-21). While the two systems basically have the same goal, the methods of punishment are not the same. As a result, discipline may not be equitable in the view of the civilian or the military person. Consequently, the effect on the unit previously described for the equity factor applies here and the factor is considered a disadvantage to the conversion of military to civilian personnel.

Position/Personnel Conflict

A new problem with civilianization was noted at the time of the Mix Fix program. While the program was seen as a job boom for the civilian populace, the new civil service jobs provided the opportunity for retiring servicemen to fill them; in effect, they were in the right place at the right time. In a time of national emergency this could create difficulties, especially if the retiree is recalled to active duty in a position that is different from the civilian government position he occupies. One position or the other may be vacant until a trained replacement can be found. Depending on the personnel of the unit, this too, can affect the overall mission of the unit involved and the Air Force overall if a large scale

recall occurs and there are a large number of personnel required for multiple positions (8:1). The substitution program was also intended to utilize positions of stability "without effecting the capability of the Air Force to perform its combat missions" (42:891). Therefore, this conflict is a disadvantage for conversion actions.

Quality-of-Work Life

Quality-of-work life is a subject which must be addressed by all commanders and managers. Criteria which embrace the concept are as follows: adequate and fair compensation, safe and healthy working conditions, immediate opportunity to use and develop human capacities, future opportunity for continued growth and security, social integration in the work organization, constitutionalism in the work organization, work and the total life space, and the social relevance of work life. It is a comprehensive concept aimed at improving the "quality of human experience in the work place" (6:39). All of these criteria can be presented in one form or another to support either civilian or military aspects of the conversion of spaces. One in particular, the future opportunity for continued growth and security, is related to one of the eight conclusions from Mix Fix previously stated at Chapter Three concerning career progressions in the civil engineering field. The opportunities for progression were virtually nonexistent. It is vitally important that personnel have the chance to progress through the expected means of advancement otherwise the individuals will leave when they have their most productive years ahead of them (22:20). The conversion of spaces from military to civilian introduces a hindrance to the promotion cycle that reduces one of the important aspects of the quality-of-work life for military personnel. In this case, quality-of-work life is reduced for military personnel and the factor is a disadvantage during military to civilian conversions.

ADVANTAGES TO CONVERSIONS

Continuity Of Operations

A difference in philosophy exists between the military and the civilian way of life with regard to moving personnel. The military continues to move personnel approximately once every four to five years on the average. One of the primary reasons for moving is to provide a broad level of experience and a common knowledge base for military personnel to use. Such a broad base allows the military to spread its experience throughout the Air Force, which has the advantage of keeping the individuals exposed to new ideas and procedures that develop throughout the Air Force. Exposure to new ideas or even long

forgotten ones is a means of studying "history" to prevent mistakes from being repeated. However, civilians tend to prefer stability and move less than military personnel. While civilian personnel may change homes and jobs in one area or move from the rural community to a nearby urban community, they generally do not move long distances from one major city or state to another. Instead the civilian populace is far more stable, tending to hold one job for longer periods of time. As a result, they not only see what happened within their own jobs across several years, but they also remember past procedures that did not work which a military person may try to reintroduce. It becomes incumbent upon these people to inform the military that what he is about to do will not work based on their past experience. The military manager must also realize the civilian has the long term experience of his present position to provide expert advice. A controversy between the two personnel may develop; seniority in rank will probably prevail for the short term; and one or the other will use his judgment. Whether one individual is right or wrong depends entirely upon the situation and the desired outcome. The point to emphasize here is that both have valuable experience which neither can disregard, and hopefully both will realize that the other person has something to offer which may be of value. The stability of the civilian provides a continuity of operations; therefore, the civilian offers an advantage for military to civilian conversion actions.

Mobility

Mobility is a factor which must also be considered during conversion actions. As previously noted, military personnel comprise the force that is trained and ready for immediate deployment anywhere needed to support national interests. Although it is more difficult to deploy the traditional units, SAC and MAC retain the traditional concept of four maintenance organizations. The realignment of tactical air force maintenance organizations to the combat oriented maintenance organization concept has the objective to increase sortie production capability. As a result of this reorganization, it is possible for the maintenance organization to easily deploy with the combat unit during a wartime situation. If civilian personnel were assigned to these units, they could not deploy with their units to a combat zone, consequently, replacements from other military sources would have to be found to replace them or the additional workload must be absorbed by the military personnel.

The greatest requirement for mobility is at the unit maintenance organization. At the depot level, there are considerably more civilian personnel than military but there is virtually no mobility requirement. The personnel at each level

perform their maintenance responsibilities commensurate with their specialties but have differing requirements for mobilization. Military personnel are expected to deploy without question while civilian units will not be expected to deploy to any forward locations. Units that have civilian and military personnel will be absorbing the vacancies either due to civilians left behind or for military called back to combat units.

Mobility requirements and the absorption of duties creates a condition related to Herzberg's hygiene factors, specifically working conditions. According to Herzberg, good working conditions do not necessarily lead to satisfaction; however, the absence of good working conditions does lead to employee dissatisfaction. For the military individual, mobility and the absorption of work due to the loss of a workmate is generally accepted as a condition of military life. Borrowing personnel to fill a vacant position requires the person to do a job that he was not originally designated to accomplish. Consequently, he has not only the responsibility for his normal position but also the responsibility for the new work. Depending on the individual, this may affect his personal attitude and his morale may deteriorate (19:60). If the unit commander decides not to fill or accomplish the old position at all, the losing work unit operates in a degraded manner with production and quality falling and lower overall unit morale (27:VII-5). Thus mobility is a disadvantage to military personnel in a unit.

However, for the civilian employee these two items, mobility and absorption of work, are not generally accepted as conditions of employment. Civilian personnel provide the advantage of a stable experienced labor force that is not continually processing personnel for training caused by items such as separations, losses, reassignments (37:1-3). Consequently, mobility and the possibility of work absorption are elements that must be considered during any conversion project especially those that require mobility such as the maintenance field. When military positions are converted to civilian positions, the reduced mobility introduced by civilian personnel becomes an advantage through stability and continuity of operations.

Technology

New weapons acquisition can be an important factor in the conversion of positions. According to an Air Force report, increased technical complexity "should be made transparent to minimize the need for highly specialized technicians" (7:177). This is due to the fact that war follows the changing nature of technology which in turn encourages further civilianization (48:122). To explain this, it must be realized that more

emphasis is being placed on operating aircraft as autonomous units without all the maintenance support that has been required in the past. As a result, less personnel will be required in the field to perform the routine maintenance. In the future, the maintenance actions for the line equipment will primarily be removing and replacing blackboxes and electronic cards while checking to ensure operability. The blackboxes and cards that require more in-depth maintenance will be sent back to the repair squadrons for off-equipment maintenance and repair. In the worst case, the items would be returned to the depot for extensive maintenance and overhaul. While military personnel must be used in the combat field under the POMO or COMO concept, there will be reduced major activity in the field and more activity in the depot where the civilian populace can work without combat restrictions. As a result, the technology which supports the autonomy of the aircraft also promotes the use of civilians at the depot level. Technology, including the movement towards autonomous operations, is an advantage to civilianization.

Training

Training is an additional factor which may be an advantage for the civilian worker occupying a military position. Air Force personnel receive specialized training for their particular field and receive an Air Force Specialty Code (AFSC) to indicate their specialized training on their records. Future Air Force training is to "emphasize weapon system multi-skilled fundamentals and conduct peacetime maintenance operations in this system-oriented framework" (7:177). Thus, personnel having the same codes can perform their work anywhere in the world in that field and normally do not perform in another field unless they have cross-training. Civilian personnel typically have broader levels of training and experience; therefore, they are more capable of performing an increased number of tasks in a more efficient manner. At the maintenance depot this is a distinct advantage, since the civilian personnel could better deal with varying workloads across different systems and, in addition, they do not have the distinct pressures of combat.

At the time of Mix Fix, the draft was still in effect which meant that personnel received military training and specialized training prior to going to their duty stations. It also meant that a higher rate of turnover existed since a large number of personnel did not have the desire to stay in the service. Training requirements for the military were much higher than those for civilian counterparts since they received associated military training not necessarily related to their specialty. Civilians only needed familiarization training for their position since they already had the required background

which the job description required; therefore, civilianization was expected to reduce the costs and time lost for training. Subsequently, the draft was also expected to be eased through the use of more civilians than military because civilians would be employed longer than the draftee (20:1) which in turn eased the training problem. With respect to conversion actions, civilians have the advantage due to the reduced need for training.

SUMMARY

In review, nineteen factors were introduced in this chapter which have a bearing on the conversion of military to civilian personnel. Two factors, cost and heritage, were considered beyond the scope of this paper while environment and skill variety were two factors considered to have neither an advantage nor a disadvantage for conversions. The factors which were considered as disadvantages for military to civilian conversions included the following: equity, grade comparison, performance appraisals, performance standards, morale, overseas service, unions, career progression, discipline, position/personnel conflicts, and quality-of-working life. Finally, the four factors considered to have an advantage for military to civilian conversions are as follows: continuity of operations, the limited mobility introduced by civilian personnel, technology, and training.

Chapter Seven

CONCLUDING MATERIAL

SUMMARY

Human resources management involves more than hiring, training, evaluating, and firing personnel. It includes activities such as matching employees to their jobs, promotion potential, quality-of-work life, unions, or evaluating the reasons for absenteeism and high turnover rates. The human resources aspect within the Air Force concerns two labor elements, the military members and civilian employees. The conversion of military positions to civilian positions is seen by Congress as a quick and beneficial means to reduce DOD spending without endangering the defense of the country. In the past, the conversions were also followed by civilian personnel cuts which reduced the capability of the military.

Currently, AFR 26-1 and OMB Circular Number A-76 provide detailed cost guidelines for conversion actions. In addition, if the position is not a military essential position by reason of command or combat related duties, then AFR 26-1 also outlines further position criteria through the Critical Military Skills and the Unsatisfactory Rotation Index programs. The guidelines do not provide any consideration for the human resource activities previously mentioned. Since the Air Force mission has primary importance and maintenance directly supports the mission, it is vitally important that human resource aspects receive consideration during the conversion of military positions to civilian positions.

Fulfilling this mission requires the best efforts of capable, dedicated people; any lessor effort poses a danger, to the nation (27:xv).

Previous manpower actions, such as Project Mix Fix in the mid-1960s, introduced some of the aspects of conversion actions besides the apparent advantages of cost and the release of military personnel for combat related duties. Aspects which were disadvantages included the following: lower productivity, morale, retention problems, career progression, flexibility of management, and labor management relations. Some of the

aspects have been corrected including unsatisfactory rotations and critical military skills.

Manpower availability, supported by the All-Volunteer Force and limited by the economy, also affects the conversion actions. The All-Volunteer Force currently appears to be providing enough high quality recruits who are willing to make sacrifices for the military. The low state of the economy has driven young people to find jobs in the military while the labor market has had a high unemployment rate. The military has been a source of steady employment in an unstable economy for the labor market. However, the future manpower pool may shift away from the military and back to civilian jobs due to the improved economy which permits unemployment to go down. In addition, industry is hiring first- and second-term personnel and the manpower pool is beginning a downward trend since the number of 18 year old males "will fall by 19 percent with most of the drop occurring before 1985" (40:277). If the quantity of personnel is reduced, training requirements will go up. This situation will require senior NCOs to fill instructor positions when there is already a shortage of aircraft systems maintenance NCOs and avionics systems NCOs.

Civilian manpower availability has similar recruiting problems in that it is also dependent on the current economy. Approximately one third of the Air Force manpower is civilian. While the civilians are also short of personnel, Congress maintains a ceiling on their numbers. This causes the borrowing of military manpower and increased reliance on overtime and temporary workers. This causes a detrimental effect on the unit's productivity, morale, and quality of work. Thus, the utilization of civilian personnel for military positions is a disadvantage to conversion actions.

It is difficult to determine the proper mix of military and civilian personnel in view of the changing economy and the decreasing manpower pool. Both will have an effect not only in terms of cost but also in terms of the human resources aspects. Manpower mixes only appear to be good estimates for a particular time period or economy. As previously stated,

Combat-to-support ratios, however constructed, are merely statistical by-products of this force/manpower structuring. Manpower resources are an estimate of the most efficient mix (26:175).

The personnel mix is also affected by the maintenance environment. Organizations such as SAC and MAC have operations with strong centralized controls on their aircraft maintenance units. Tactical units, however, have decentralized units that can deploy with the flying squadrons easily. Both of these

concepts occur at the wing level which is mobile and which can be supported by the military work force. The requirement for mobility is a disadvantage to conversions especially since civilians not only prefer stability but they can also terminate their job if the requirements are not to their liking. At the depot level, however, the maintenance actions require more time to accomplish and thus require more stability. At this level, the civilian worker can provide a stable work force to support the depot.

The final personnel mix is not necessarily the most productive mix with regard to human resources. Hence, consideration to other factors must be given by the commanders before deciding on a conversion. Since 1955, factors that were advantages to conversions included the possibility of cost savings, and the release of manpower for combat related positions. In the latter case, advances in technology which minimize the need for highly specialized personnel in the field are considered an advantage. But there are several other factors which have an impact when positions are converted.

The environment and skill variety may be either an advantage or a disadvantage to military or civilian personnel. Although military personnel receive highly specialized training, it is typically limited to Air Force operations. Conversions can also interrupt the training and career progression cycle of military personnel. Mobility requirements can yield poor working conditions that are dissatisfiers on the continuum developed by Herzberg, thus, civilian stability and the continuity of operations are advantages to civilian personnel. In addition, the absorption of work by other personnel due to another person's absence is a dissatisfier. Overseas duty, while exciting at first, eventually creates dissatisfaction in varying degrees depending on the individual and his perceptions. Equity, as perceived by the military and the civilian employees, is an important factor that appears in many forms such as grade comparisons and performance appraisals. Therefore, a perceived lack of equity between the two elements creates difficulties that the commander must resolve, or he will lose unit efficiency and productivity. Many day-to-day actions affect the quality-of-work life. In turn, all of the factors mentioned affect morale or job satisfaction which can be measured in terms of attitudes, turnover, absenteeism, tardiness, grievances, and disciplinary actions. Likewise, dissatisfaction and the lack of sound management principles will create the conditions for union actions by union employees.

The factors considered as advantages by this paper for military to civilian conversions included the following: continuity of operations, stability of civilians (as opposed to

the mobility of military personnel), technology, and training. Disadvantages included the following: equity, grade comparison, performance appraisals, performance standards, morale, overseas service, unions, career progression, discipline, position/personnel conflicts, and the quality-of-work life. All of the factors listed as disadvantages are detrimental to the Air Force mission while those few that are advantageous support the mission. Yet, each of the factors require individual consideration for any job that may be converted from a military to a civilian position.

CONCLUSIONS

Conversions are very complex actions which require an in-depth analysis of all the ramifications involved from cost to the morale implications and other human resource factors that may affect the unit. As stated previously, "the services are nearing the maximum numbers of military to civilian space conversions which can be absorbed" (19:60). To rely on cost alone or the release of military personnel for other combat related duties without analyzing the situation may result in decreased unit cohesion and readiness. Four of the factors introduced in this paper were neither advantages or disadvantages, while only four others were considered to be advantages. The remaining eleven of the nineteen factors were disadvantages which affect the readiness of maintenance units; therefore, military to civilian conversions are detrimental to the Air Force mission.

RECOMMENDATIONS

It is highly recommended that cost and the intended release of military personnel for combat duties should not be the only factors used to determine conversion actions. Rather, an investigation including the human resource aspects must also be accomplished to determine the true picture in each conversion regarding the advantages and the disadvantages of any future maintenance position conversions.

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